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ABSTRACT

Eight articles report on findings of the five Research Institutes in Learning Disabilities. T. Bryan reports on "The Chicago Institute for Learning Disabilities" with findings concerning children's conversational skills, how children account for success and failure, children's ingratiation tactics, children who forget quickly, and children's reading problems. "Research at the University of Virginia Learning Disabilities Research Institute" by D. Hallahan and R. Kneedler is a report of laboratory, intervention, and ecological research with findings such as the effectiveness of self instruction and self monitoring in increasing ontask behavior and academic productivity of learning disabled children. The remaining articles have the following titles and authors: "Psychoeducational Decision-Making Practices in a Simulated Assessment Session" (J. Ysseldyke, et al.); "The Role of Cognitive Strategies in Certain Reading Comprehension Disabilities" (W. MacGinitie, et al.); "The Impact of Learning Disabilities on Post-School Adjustment" (W. White, et al.); "Relationships among Simple Measures of Reading, Spelling and Written Expression and Performance on Standardized Achievement Tests" (P. Mirkin, S. Deno); "Profile of the Learning Disabled Adolescent--A Mirror Image of Other Low Achievers" (F. Clark, et al.); and "Modifying Instruction to Minimize the Effects of Learning Disabilities" (N. Bryant). (DB)

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FOCUS ON RESEARCH IN LEARNING DISABILITIES: REPORTS FROM THE RESEARCH INSTITUTES

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VIEWPOINT

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Educational services have been provided to children designated as learning disabled for the past twenty years or so, although there has not been complete agreement as to the nature of the disorder, or as to the nature of its appropriate treatment. In fact, the history of the development of education of the learning disabled has been characterized by broad and often discrepant postulations regarding what constitutes appropriate treatment. These issues were well stated in the Summer 1980, *Forum.*

While the field has not lacked theoreticians, it has lacked a solid empirical base upon which to formulate treatment decisions. We have not always had an easy time ascertaining just *who* should be called learning disabled. Some definitions have grown from untested theory, some from questionable postulations; some have been extrapolated from other fields. It was against this background that the Research Institutes in Learning Disabilities were created.

In 1977, a request of proposals for multidisciplinary research institutes focused on learning disabilities was issued by the then Bureau for the Education of the Handicapped, USOE. Conceived as a multiyear, multidisciplinary programmatic effort, the request generated a sizable numbe. of responses. Awards were made to five Institutes, and these Institutes are now concluding their third year of operation. This issue of *Forum* presents a sampling of findings, a tantalizing hors d'oeuvre to the work of the Institutes. It has been prepared in the hope that each of you, the readers, will want to know more, and will avail yourselves of the dissemination efforts of each of the Institutes.

The Institutes share a common agenda; each is charged with the responsibility of clarifying issues of definition and treatment of learning disabled children and youth. Each operates within a particular target area, and so makes a unique contribution through programmatic research. The work of the Institutes is far from over—what is presented here might be viewed as a status report.

For your convenience, the addresses of the Institutes are listed here, along with a very brief description of their central interests. Each is committed to sharing findings, and has available to you an array of

(Continued on Page 23)

The Chicago Institute For Learning Disabilities

Tanis H. Bryan, Ph.D.
Director Chicago Institute for Learning Disabilities

The Chicago Institute for Learning Disabilities, under the direction of Drs. Tanis Bryan and Maurice Eash, is comprised of 4 major areas of investigation: language and social skills research, headed by Drs. Tanis Bryan, Mavis Donahue, and Ruth Pearl; reading research, directed by Dr. Susanna Pflaum; social skills and ingratiation tactics led by Dr. James Bryan; and learning and memory research of Drs. James Hall and Michael Humphreys.

The research of the Institute supports the theory that investigation of the social world of the learning disabled child is critical to the understanding of his difficulties. Researchers believe that, since social learning theory assumes a continuous reciprocal process of influence between the individual and the environment, they cannot hope to arrive at an adequate understanding of the learning disabled child in isolation from his social surroundings.

Accordingly, Institute staff are engaged in analyzing the characteristics of the child himself, and of the parents, teachers, and schools which form an integral part of his world. They are also examining reciprocal relationships—with parents, siblings, teachers. peers, and strangers—which serve to facilitate or inhibit his social and academic development. This line of research suggests, in turn, that direction for developing interventions (which will, hopefully, be the eventual outcome of research) is likely to focus on the children together with teachers and/or family members.

What's in a name?

The search for an adequate definition of the term "learning disabilities" is a primary goal of the Chicago Institute. This definitional problem is being addressed by studying children in school districts which differ in race and sociometric status. By conducting research in both private and public, racially homogeneous and heterogeneous, city and suburban schools, the staff of the Institute believe that they can establish an ecologically valid picture of what learning disabilities represent at the school level. Since it is commonly assumed that learning disabled children represent a unique, heterogeneous group, it is clear that a technology cannot be built until the commonalities across these children are established.

Children's Conversational Skills.

Tanis Bryan, Mavis Donahue, and Ruth Pearl have been working with children in three Chicago parochial schools, where they are studying children's acquisition of pragmatics, or the use of language in social contexts. Their findings suggest that learning disabled children talk as much as nondisabled children, however, their communicative exchanges are discriminated from non-disabled children on a variety of dimensions. First, learning disabled children function less well as listeners; hence, when communications breakdown they are less likely to repair the communication exchange by asking questions. Second, they are less persuasive than non-disabled children, and less able to argue their opinions than non-disabled children. Third, they function less effectively in maintaining the flow of a conversation (eg., learning disabled children ask fewer questions as "hosts" on a talk-show).

Within the learning disabled population, important sex differences are coming to light. Learning disabled girls tend to be more polite than others, suggesting lack of social knowledge or experience of intimacy. Learning disabled boys, on the other hand, tend to be least polite, suggesting either lack of social knowledge or skills or lack of motivation. First and second grade learning disabled girls are less responsive than non-disabled girls to subtle, non-verbal indications of non-comprehension from a listener. Learning disabled boys in those grades, however, are more responsive to such cues than non-disabled boys.

How do children account for success and failure?

The same researchers and children have been employed in studies of children's locus of control. The researchers find that learning disabled children are as internal as non-disabled children for failure, but less internal for success. Thus, learning disabled children attribute their failures to personal factors, but their successes to other people being nice, tasks being easy, or luck. When they fail, non-disabled children are more likely than learning disabled children to attribute the failure to lack of effort. The learning disabled children's perceptions that failures are insurmountable suggests that these children may give up in the face of

failure, even when persistence and effort might bring them success, a profile which approximates "learned helplessness". The researchers found, too, that these attributions spill over into speaker-listener situations. Children who are internal for success are more likely to ask questions to clarify ambiguous conversations; children who are internal for failure tend to feel responsible for communication breakdowns.

Children's ingratiation tactics.

James Bryan has been studying the non-verbal and cognitive correlates associated with learning disabled children's ingratiation strategies. He has found that learning disabled children who feel no motivation to ingratiate or make themselves liked will be attributed negative personality characteristics by audiences of children or adults who do not know the child, and who have no knowledge of his learning disabled diagnosis, academic record, or personal history. These negative attributions, moreover, are based on the child's non-verbal behavior rather than on what he actually says. However, if learning disabled children are motivated to be ingratiating towards an adult interviewer, they will make a more positive impression on some audiences than non-disabled children who received identical instructions to ingratiate.

This pattern of results, then, raises the question whether the learning disabled child does in fact suffer from a social skills deficit which accounts for the social isolation or rejection he experiences (the basic premise underlying much work in social remediation), or whether he does have adequate social skills, but does not know—or, maybe, does not care—how or when to use them, and it is this lack of knowledge and motivation which is the real source of his social difficulties.

Current research, then, is addressed to studying the learning disabled child's perceptions about ingratiation techniques, and determining the situational events which might serve to initiate ingratiation attempts. This work involves the use of both structured interviews and laboratory experiments in which audience characteristics are manipulated.

Children who forget quickly—are they learning disabled?

Although learning disabled children are assumed to have memory problems, this assumption may not be justified, according to James Hall, Michael Humphreys, and Kim Wilson of Northwestern University. These researchers claim that the term "learning" in the definition "learning disabilities" has been largely unexplored. In their research, distinctions are made between learning (for instance, how many trials and what conditions are required for material to be learned), and memory/retention (that is, given that learning has occurred to criterion, are there different rates at which learning disbled and non-disabled children forget information across varying periods of time). Since this distinction would have implications for teaching strategies, the researchers believe that it is imperative to sort out the roles of learning and memory in order to understand the learning disabled child's poor performance on so many tasks.

So far, their studies have determined that although learning disabled children take longer (more trials) to learn, once they reach criterion they do not appear to forget any more rapidly than non-disabled children. However, a subsample of children with memory problems was identified through the use of teacher ratings. It is notable that, in spite of the assumption that memory problems and learning disabilities go together, only one of the 12 children whom teachers rated as forgetting rapidly had actually been referred for learning disability placement. Furthermore, this group did demonstrate differences in retention: unlike the learning disabled and non-disabled sample, the poor memory group did forget more across a 24-hour period.

Children's reading problems can be helped

A series of studies on oral reading behaviors in learning disabled children by Susanna Pflaum and her colleagues has examined aspects of the children's classroom reading. During oral reading, learning disabled children make less use of context cues than do normal readers. Other analysis suggests that these children, in contrast to non-disabled children, depend on their equally proficient application of phonic cues. The researchers set up an intervention study on the assumption that learning disabled readers' less proficient use of context cues is due, at least in part, to their lack of understanding about how to use their language knowledge to maintain and recover meaning.

The 12-week program focused on 1) how to use context to determine when errors adversely affect meaning and when they do not; and 2) on the best method of self-correction. The results of the program were very positive for children who were reading at least at second grade level and, moreover, the treatment had the effect of reducing all the participants' dependence on phonic cues. Thus, the researchers have learned not only that oral reading strategies differentiate the learning disabled from the non-disabled reader, but also that these strategies are amenable to change.

Additional work has included study of aspects of diagnosis of reading behaviors and, currently, study of comprehension facilitators. It is hoped that—based on work already completed, work in progress and that planned—this aspect of the project will produce specific recommendations for teachers.

Research at the University of Virginia Learning Disabilities Research Institute

Daniel P. Hallahan, Ph.D., Director
and
Rebecca Dailey Kneedler, Ed.D. Associate Director

Most normally achieving children, when faced with the prospect of performing an academic task, are able to draw upon a repertoire of strategies to aid them in their endeavor. At the very least, no matter how difficult the task, they are usually able to control their own attentional behaviors in order to concentrate on the task at hand. Learning disabled children, in contrast, are frequently at a loss regarding what efficient learning strategies they may use. In particular, they often have great difficulty in staying actively engaged in the solution of the tasks before them. It is the general goal of researchers at the University of Virginia Learning Disabilities Research Institute to discover and validate educational treatment procedures that enable learning disabled children to make better use of the cognitive strategies available to them. *It is our philosophy that, while the early stages of instruction must be highly structured and teacher-directed, the ultimate goal is to teach learning disabled children to become self-activated learners.*

Service Components

In order to explore intervention procedures arising from research on cognitive and information processing in learning disabled children, we have established in cooperation with the Charlottesville City Schools and the Albemarle County Public Schools, four self-contained classrooms for elementary school children with learning disabilities from which we draw subjects for projects. In addition, the Virginia Institute supports three graduate assistants who serve as classroom supervisors. The supervisors convey information to the teachers about upcoming projects and research, provide feedback about implementation of instructional plans, provide some instructional assistance, demonstrate instructional procedures, and consult with teachers about their concerns. Classroom supervisors are also involved in collecting data for intervention studies.

In addition to the classroom component, we have a home intervention component. The initial purpose of the home intervention component was to engage parents of learning disabled children in the educational process. To that end, home tutors (University of Virginia undergraduate psychology and education students) provided instruction and help for the children and sought to teach parents how to assist their own children. Recently, the home-based intervention component has begun to shift its emphasis to a home-based reinforcement system. This shift in focus will reduce the expenditure of time and effort by university personnel, teachers, and parents while providing a more ecologically valid treatment approach. The core of the homebased reinforcement project are frequent positive notes about the child's progress which are sent home to the parents. Recent literature indicates that such an approach has been successful in leading to improved academic and social behavior for many different types of children. Among the questions which the Virginia Institute plans to explore are what effects this homebased reinforcement approach would have on parental attitudes and how will the approach affect generalization of treatment effects from school to home and vice versa.

Research Components

In order to achieve our ultimate goals of developing appropriate intervention strategies for learning disabled children, we have organized our research efforts into the following components: laboratory, intervention, and ecological research. Thus, we are able to investigate cognitive processing deficits exhibited by learning disabled children from the perspective of three major social science research strategies.

In the laboratory research component, learning disabled children's metacognitive abilities (their awareness of the cognitive strategies available to them), learning strategies, and attributional characteristics (their thoughts regarding the cause of their problems) are being investigated. In addition, several studies of adult-child interaction have moved into the laboratory in order to permit a closer look at particular aspects of child behavior and the ways in which child behavior mediates adult-child interaction. It is our hypothesis that there is a strong interdependence among metacognitive abilities (knowledge about what strategies are available), learning strategies, attributional characteristics, and patterns of adult-child interaction. For example, it is important to determine whether metacognitive abilities are precursors of the application of these strategies or vice versa. It is reasonable to expect that a child's attributions are closely related to his or her understanding of a strategy and the likelihood of using it. Furthermore, the amounts and kinds of instruction given by the teacher to the strategy deficient child also may be expected to impinge on the child's acquisition and use of

appropriate strategies. Thus, the general goals of the laboratory research component are (1) to provide basic information on the strategy deficits of learning disabled children from research in a controlled setting and (2) to generate ideas that can be empirically tested in the intervention component of the Institute.

The intervention component provides a testing ground for hypotheses generated by laboratory or ecological investigations in addition to monitoring the effectiveness of various instructional and behavioral management programs. Our laboratory research suggests that many learning disabled children exhibit inefficient task-approach strategies, a poor understanding of what strategies are available, and a passive approach to learning or external locus of control. Cognitive behavior modification as a technique appears particularly well-suited to attack these major problems of learning disabled children. This technique emphasizes providing the child with specific task approach strategies, an understanding of what strategies are available, and an active involvement with the learning process. Thus, the classroom-based intervention component is concerned with exploring a variety of cognitive training techniques in experimentally controlled conditions. Cognitive training techniques under current investigation include self-instruction, self-monitoring, and self-choice of treatment.

The third research component of the Institute is the ecological research component. The goal of this portion of the research program is to identify teacher behaviors which control attentional behavior in students and the effect of student attentional behavior on teachers. A long range goal will be to apply the knowledge gained about child-teacher interaction patterns to intervention research. Other studies will seek to determine if there are reliable student behavior patterns that typically follow negative interactions with teachers and will investigate patterns of teacher behavior which are associated with increased probabilities of on-task or off-task behavior in learning disabled children. Another project is designed to investigate optimal schedules of reinforcement for attention to task by learning disabled children. Information from the ecological research will then be applied to intervention projects, i.e., teacher behavior will be manipulated to increase attention to task by students.

Results and Future Directions

We are encouraged by the research results obtained thus far in that we are finding that such techniques as self-instruction, self-monitoring, and self-choice of treatment are quite successful in increasing the on-task behavior and academic productivity of learning disabled children. The general goals for the intervention research are to produce empirically validated and efficient intervention techniques that teachers can use to provide learning disabled children with strategies for academic and social learning. Within the intervention research there are three categories of projects in progress: (1) Studies focusing on self-monitoring procedures for both academic and social learning problems; (2) studies which train the LD child to identify and employ appropriate academic attack strategies; and (3) studies surrounding the home-based reinforcement program previously described.

Self-monitoring effects on on-task behavior and academic productivity. The primary treatment procedure we have used in these studies involves requiring the child to record whether he/she was paying attention at the time a tape recorded signal occurs. In most of our studies, the signals have occured randomly with a mean length of 45 seconds between tones. The child is provided with a sheet of paper with the question, "Was I paying attention?" at the top and columns for "yes" or "no" to be checked. These have been conducted during times of the day that children are expected to be doing seatwork. Thus far, our results have been encouraging. First, the treatment procedure described above has been highly effective in increasing attention to task and academic productivity. This effect occurs without reliance on back-up reinforcers and, perhaps more important, this effect shows long-term maintenance. Second, the actual recording behavior (making the check on the sheet of paper) appears to be a critical part of the self-monitoring procedure. Simply having the child ask himself/herself, "Was I paying attention?" (the self-assessment part of the procedure) is not effective unless the child first has been exposed to self-recording. Finally, the cue (the tape-recorded signal) is also an important aspect of the treatment procedure. Simply having the child ask himself/herself, "Was I paying attention?" whenever he/she thinks about it is less effective than having him/her do it when cued by a tape-recorded tone. It does appear, however, that once the child has been exposed to the cue, he/she can be successfully "weaned" off reliance on this external cue. An elaboration of these procedures and findings can be obtained through a number of Technical Reports which are distributed for a nominal charge by the Virginia LDRI.

Using the findings of these studies, we are planning to do further component analyses of the self-monitoring process with the ultimate goal of arriving at a streamlined set of self-monitoring procedures that teachers can easily and effectively implement in their classrooms. To this end, we are planning a comparison of self-recording the occurence of on-task behavior and the duration of on-task behavior. We are planning to investigate the effects of extending the self-recording component by having the child chart his/her on-task performance and academic productivity. Another study will focus on a comparison of different interval lengths between cues on on-task behavior and academic productivity.

Training effects on the use of appropriate academic attack strategies. Another group of studies conducted by the Institute staff focus on training the learning disabled child to identify and employ appropriate academic attack strategies. Projects in which children are trained to use appropriate attack strategies have been conducted in reading and arithmetic. Results of

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Psychoeducational Decision-Making Practices in a Simulated Assessment Session

James Ysseldyke, Ph.D., Bob Algozzine, Ph.D. and
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University of Minnesota

Research efforts of the Institute for Research on Learning Disabilities at the University of Minnesota focus on the complex set of theoretical, conceptual, practical, and empirical issues in the identification and assessment of the heterogeneous group of students labeled learning disabled. This research report describes the results of one of 10 major studies, a computer-simulated investigation of the assessment and decision-making process.

Background for the Study

School personnel regularly must decide who, among those students experiencing academic and behavioral difficulties, should be declared eligible for and receive special education services. Considerable time and effort go into the collection of data for decision making and into the actual deliberations that lead to decisions. Yet, we know very little about the decision-making process, about how tests are used to make decisions, and about the extent to which different kinds of data are perceived as influencing the decisions that are made. In short, though professionals engage in a variety of assessment activities, very little empirical evidence guides those actions.

In the current investigation, we examined both the issues of test use and the extent to which the decision-making process and outcomes of that process were biased by referral information about a student. At the same time, we gathered information on the extent to which decision makers use technically adequate tests, use test manuals, and go beyond test scores to evaluate *how* youngesters earn those scores.

Method of Analysis

An interactive computer program was developed in which participants were allowed to access data from seven different domains of assessment information (e.g., intellectual data, achievement data, etc.). In all cases, the information they received was indicative of *average performance for a child of the same age and grade as the one "referred"*. Sixteen referral cases were created; each contained information to differentiate the child in terms of sex, parental socio-economic status, attractiveness and reason for referral. Two hundred and twenty-four school professionals were asked to review a referral case, access individually desired assessment data and make decisions about the referred child.

Research Questions

The following major research questions were addressed in this simulation study of decision making:

A. Test Usage
- What specific domains (e.g., intelligence, achievement, personality) do decision makers gather data in?
- What specific assessment devices (tests or other data collection procedures) do they select?
- How often do decision makers use technically adequate tests (with regard to norms, reliability, and validity)?
- To what extent do naturally-occurring pupil characteristics (e.g., sex, etc.) bias test selection?
- To what extent do representatives of different roles (e.g., special education teachers, school psychologists) select different tests?
- To what extent is test selection a function of one's knowledge about assessment?

B. Use of Technical Manuals
- How often (i.e., what percentage of the time) do decision makers refer to technical manuals when using specific tests?
- To what extent do naturally-occurring pupil characteristics bias manual usage?
- To what extent is manual usage a function of professional role?
- To what extent is manual usage a function of one's knowledge about assessment?

C. Use of Qualitative Information
- To what extent do decision makers go beyond test scores to look at ways in which those scores were earned?
- To what extent do naturally-occurring pupil characteristics bias the use of qualitative information?
- To what extent is the use of qualitative information different as a function of professional role?
- To what extent is the use of qualitative information a function of one's knowledge about assessment?

D. Eligibility Decisions
- Given data indicative of normal or average test performance by a referred student, to what extent do decision makers declare the student eligible for special education services?

- To what extent are eligibility decisions biased by the referred student's sex, socioeconomic status, physical appearance, and presenting problem?
- To what extent is differential eligibility decision making a function of professional role?
- To what extent is differential eligibility decision making a function of knowledge about assessment?

E. Classification Decisions
- Given data indicative of average pupil performance, to what extent do decision makers classify students as learning disabled (LD), mentally retarded (MR), and emotionally disturbed (ED)?
- To what extent are classification decisions biased by naturally-occurring pupil characteristics?
- To what extent do representatives of different roles classify differently given the same assessment data?
- To what extent are classification decisions a function of knowledge about assessment?

F. Prognostic Decisions
- Given data indicative of average performance on tests, to what extent do decision makers predict that students will evidence difficulties in reading, mathematics, and speech?
- To what extent are prognostic decisions biased by naturally-occurring pupil characteristics?
- To what extent is prognostic decision making a function of professional role?
- To what extent is prognostic decision making a function of knowledge about assessment?

G. Placement Alternatives
- What is the variability in the kinds of placements recommended for students with comparable test scores?
- To what extent are placement recommendations a function of pupil sex, socioeconomic status, appearance, and nature of difficulty?
- To what extent do representatives of different roles make different placement recommendations for the same student?
- To what extent does knowledge about assessment affect the making of placement decisions?

H. Factors Influencing Decisions
- To what extent are decision makers influenced by test scores and naturally-occurring characteristics in the decision they make?

I. Expectations
- To what extent do educational personnel expect specific kinds of students (e.g., black students, physically unattractive students) to be represented in specific categorical groups?

J. Efficacy of Simulation
- To what extent is computer simulated decision making perceived as representative of "real life" decision making?

Major Findings

The following major findings were obtained for each of the research questions. Details are reported in research reports available from the University of Minnesota Institute for Research on Learning Disabilities.

A. **Test Usage**
- The most frequently selected domains were achievement and intelligence.
- The most frequently selected tests were the WISC-R and the Bender.
- Twenty-four of the available tests were considered to be technically adequate with respect to norms and validity, and forty-one percent with respect to reliability. Professionals selected adequate tests earlier in the decision-making process, but chose inadequate devices in subsequent selections.
- Achievement tests were most frequently used for academic referrals; behavioral measures were most frequently used for behavior referrals. Other naturally-occurring pupil characteristics did not influence test usage.
- Psychologists tended to use frequency counts, event recordings, and projective tests more often than other professionals.
- One's knowledge about assessment does affect their assessment and decision making practices.

B. **Use of Technical Manuals**
- General use of technical manuals was low.
- Requests for technical information were less frequent when students were referred for academic problems than when they were referred for behavior problems.
- Regular educators made the most frequent use of test manuals, while school psychologists were the least likely group of professionals to access test manuals.
- Those who earned high scores on the pretest made very few requests for technical information.

C. **Use of Qualitative Information**
- Requests for qualitative information paralleled the referral statement (e.g., qualitative information was requested on academic measures when the student was referred for academic problems).
- Number of requests for qualitative information was similar among all groups of professionals and levels of pretest knowledge. In addition, requests for qualitative information did not differ as a function of naturally-occurring pupil characteristics.

D. **Eligibility Decisions**
- 51% of the decision makers declared the normal child eligible for special education services.
- No pattern of naturally-occurring pupil characteristics was evident in the participants' identifications of pupils as eligible for special education services.
- Administrators were least likely to declare eligibility. Regular educators were most likely to declare the normal child eligible for service. Regular educators declared the student eligible twice as often as administrators.
- Knowledge of assessment did not influence

(Continued on Page 20)

The Role of Cognitive Strategies in Certain Reading Comprehension Disabilities

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Our work at the Institute has included studies of the information processing strategies of learning disabled children in the upper elementary grades as these strategies relate to language comprehension disabilities. These studies have made clear that there are specific learning disabilities that result in language comprehension difficulties, and that information processing analyses are fruitful procedures for characterizing these deficiencies and for suggesting remedial procedures. Our studies indicate that many children with language comprehension disabilities can be characterized as displaying one or more of several types of unproductive strategies (Maria & MacGinitie, 1980). These types of strategies must be more fully defined and analyzed, but even at the present global level of description, the characterizations provide implicit guidance for developing different procedures for helping children with comprehension disabilities. Our most recent work has centered on two types of deficient strategies and their effect on reading comprehension. The two types of deficient strategies are:

Type 1: Inflexible application of an initial hypothesis. Children affected by this type of processing deficit form an interpretation of the early portion of a text and try to interpret all the subsequent text in conformity with the initial interpretation. These children often give very far-fetched interpretations of later portions of the text to make them consonant with their interpretation of the early portion. These children are probably exhibiting one form of over-reliance on "top-down" text processing (Spiro, 1979).

Type 2: Overextension of a general framework from prior knowledge. Children who exhibit this processing deficit appear to use topics and relations in the text to call up related background knowledge, but are not much constrained by the specific information in the text. They read as if the text is simply saying whatever it is they already know. These children exhibit another form of excessive reliance on "top-down" processing.

Both Type 1 and Type 2 strategies can be considered non-accommodating strategies. A Type 1 strategy fails to accommodate schemata concerning text structure to a new text structure; a Type 2 strategy fails to accommodate content schemata to new information. Specifying the particular inappropriate strategy a child is using should assist us in devising instruction that presents him with a choice of more appropriate strategies.

The reading comprehension process has been viewed in recent literature within a framework of hypothesis testing (Collins, Brown & Larkin, 1977; Rubin, 1977). That is to say, in order to derive meaning from text the reader must construct tentative hypotheses for what the material will be about. The reader must go through an active process of evaluation and test out various possible interpretations of the text. The reader must finally construct a plausible model that takes into account all of the details in the text. If a promising interpretation fails to account for some aspect of the text, one has the options of accepting the interpretation as adequate in spite of its flaws or rejecting it as inadequate and searching for other possible interpretations. One aspect of the comprehension of text is, therefore, a top-down or conceptually-driven process (Adams & Collins, 1977; Anderson, Spiro & Anderson, 1977; Ausubel, 1963). Rather than analyzing a text component by component, the reader formulates possible hypotheses for the meaning of the text and undergoes a process of accepting or rejecting those hypotheses. The reader's expectations about the content of a text represent a form of pre-

processing which should make subsequent analysis more efficient.

Another aspect of the comprehension of text is a bottom-up process, or data-driven process (Bobrow & Norman, 1975). This processing begins with an analysis of letter features, combines information to identify words, and constructs the meanings of combinations of words. Both top-down and bottom-up processes are involved in effective reading (Kintsch, 1979; Rumelhart, 1976).

Spiro (1979) has proposed that some readers develop a particular approach to the task of comprehension that over emphasizes either top-down or bottom-up processes. He proposes that some readers tend to use more "knowledge-based" processes while others rely on more "text-based" processes. The bottom-up, or text-based, reader relies too much on details in the text and fails to use world knowledge to guide text processing and to provide a framework for integrating and reconstructing the meaning of the text. The top-down, or knowledge-based, reader relies too much on world knowledge and on hypotheses based upon earlier portions of the text.

The children who use a Type 1 strategy, as described above, represent a particular type of over emphasis on top-down processing. In order to derive meaning from text, a good reader constructs tentative hypotheses about the meaning of the text that has been read and about the content yet to come. The good reader goes through an active process of evaluation and tests various possible interpretations of the text. The hypotheses remain tentative until all of the information has been accounted for. The reader then constructs a plausible model that takes into account all of the details in the text. Disabled readers who use a Type 1 strategy form hypotheses but fail to evaluate and modify them appropriately on the basis of subsequent text. Specifically, these readers tend to formulate at the outset an hypothesis about the meaning of the text, then hold on to that interpretation rigidly in spite of disconfirming information in the later text. Instead of testing the hypothesis against all of the new information as they read, these readers remain so inflexible that they may change the details in the text to conform to the hypothesis rather than change or discard the hypothesis.

Some of our work has identified a group of children with a reading comprehension disability who can be characterized as inflexible in their reading comprehension strategy and we have begun to explore the effects of this inflexibility on the comprehension and recall of texts. This work has also shown that certain organizational structures, or "formulas" frequently used in writing for children are very difficult for this group of readers to comprehend.

Through careful reading of a great many children's texts (from grade levels 3 to 6), it became apparent that many of the passages were written in a kind of inductive style. That is, several sentences are used to lead up to the main point of a paragraph; the main point itself may be stated at the end. There are several types of these inductive formulas. These types include:

(1) *Negation*—paragraphs in which a belief or idea is stated in the beginning of the paragraph and later said to be false.

(2) *Analogy*—paragraphs in which the topic—a thing, fact, or idea—is explained by comparing it with another thing, fact, or idea, the analog. There are two subtypes: Direct Analogies and Opposite Analogies. In a Direct Analogy, the similarity between the topic and the analog is described. In an Opposite Analogy, a contrast between the topic and the analog is described. The inflexible reader is likely to construct a meaning that is an elaboration of the analog and that omits or merely appends the topic, particularly if the analog is mentioned first in the paragraph.

(3) *Examples-Topics (Explicit*—paragraphs in which instances of a topic are stated followed by a concluding statement of the topic that is supposed to tie the paragraph together.

(4) *Examples-Topics (Implicit*—paragraphs in which instances of a general topic are given, but the unifying topic is not explicitly stated.

To illustrate the nature of one of these formulas the following is an example of a direct analogy structure.

> When people overwork, they get very warm and perspire. This helps make the body cooler. Birds, however, don't perspire through their skins. Heat and water leave their bodies through their noses and mouths. When they are very hot, they open their mouths and breathe fast to get rid of heat. (Boning, 1976).

It is possible to imagine how a child who holds inflexibly to an interpretation of this paragraph based on the first two sentences might misunderstand its message.

We have recently completed a study that demonstrates that it is possible to locate a group of children who characteristically develop inflexible hypotheses, and that these children consistently find it difficult to understand inductive paragraph structures of the type described above. We gave 161 fifth and sixth grade students 24 inductively and 24 deductively structured paragraphs to read. The paragraphs were all taken from published children's texts at approximately fourth grade reading level. The inductively structured paragraphs all conformed to one of the formulas described above. Each paragraph was followed by multiple choice questions. asking for the main idea of the paragraph. The 12 children who showed the greatest difference between their regressed standard scores on the inductive and deductive paragraphs (with lower inductive than deductive scores) were identified as possible inflexible users of a Type 1 strategy. A matched group of children with similar total scores but with approximately equal inductive and deductive scores was also selected. Other tasks of listening, reading, and recall were administered to these two matched groups. The group

with the low inductive scores appeared to apply the Type 1 strategy consistently to these other tasks.

Other work has been directed at identifying children who depend on a Type 2 strategy—children who overrely on their prior knowledge in the interpretation of written text.

Artificial intelligence models of the structure of knowledge (Winograd, 1977) suggest that knowledge is stored in frames or schemata. A frame or schema is our encoded representation of how things happen in real life. These frames or schemata can exist at various levels. A reader can have a frame for communication situations in general. Examples of frames involving knowledge of communications situations would be the cooperative principle (Grice, 1972) and the given-new contract (Haviland & Clark, 1977).

A reader might also have a frame for a particular communication situation, for example, listening to or reading a narrative. Narrative story schemata have been devised by several researchers (Stein & Glenn, 1979; Mandler & Johnson, 1977; Rumelhart, 1975) and the effect of these schemata has been studied extensively. Apparently children differ in their use of schemata as a function of age (Stein & Glenn, 1979) and reading level (Weaver & Dickinson, 1979).

A reader might have a frame or schema for a particular word. A frame for a word is different from a definition of the word in that it involves features usually associated with the word as well as the critical features that the definition provides (Winograd, 1977). Thus, a frame for *gorilla* might include knowledge of where it lives, how it acts, what it eats, knowledge not included in the definition of gorilla.

Most researchers (e.g., Pearson, 1979; Bower, Black, & Turner, 1979) have focused on the importance of prior knowledge as an aid to understanding rather than a source of interference. Prior knowledge is important because it is necessary for inferencing. There is evidence that inferencing is used more in the comprehension of text than had previously been recognized (Clark & Clark, 1977; Nix, 1977). Many times, inferences are absolutely necessary in order to understand a passage at all. These inferences have been referred to as logical (Warren, Nicholas, & Trabasso, 1979) or enabling inferences (Hildyard & Olson, 1978).

Evidence that the ability to inference improves with age (Paris & Upton, 1976) and that good readers make more inferences than poor readers (Tierney, Bridge, & Cera, 1978-1979) has pointed up the importance of prior knowledge in the comprehension of written text. However, in focusing on the beneficial effect of prior knowledge on comphehension, it is important not to lose sight of the interactive nature of the reading process.

It is the task of the reader to balance input from other levels of processing such as orthography, syntax, and text structure with his prior knowledge.

The reader must know how to apply prior knowledge to interpret a text. The reader must know how to apply prior knowledge to interpret a text. The results of several studies (Tierney, Bridge, & Cera, 1978-1979; Marshall & Glock, 1977-1978; Weaver & Dickinson, 1979) suggest that some disabled readers, who have a good background of experience and good verbal skills, use background knowledge to interpret text but use that background knowledge somewhat differently than good readers. Our work with some poor readers led us to suspect that it is not the implicitness or the explicitness of information which is the crucial factor for them but rather its consistency or inconsistency with their prior knowledge frame.

In a preliminary investigation, selected disabled readers were presented with texts which explicitly contradicted their prior knowledge frames. Some of them appeared to ignore what did not agree with their frames. What they did can be illustrated by the way two children recalled the following text.

Text:

> Many people think a gorilla is a wild and dangerous animal. After all, he is very big. He has very strong arms. He looks like he could pick you up and throw you a mile. When he beats his chest and roars, it is very frightening. It is easy to think of him hunting and eating smaller animals. But gorillas really eat only plants. If you meet a gorilla in the jungle, he will probably run away before you do. Does that sound like the King-Kong sort of monster you see in the movies? (Meyers & Menor, 1979)

Virginia's Recall:

> Many people think gorillas are really strong and stuff. Gorillas can pick you up and it looks like they can throw you a mile. Gorillas are really strong. If a gorilla beats on his chest, it's really frightening. Gorillas are in the jungle. They look like they can eat smaller animals.

Linda's Recall:

> Gorillas frighten people. They have strong arms. They always bang their chests, and that is when you get very frightened. And it says that is like King-Kong in the movies.

It can be seen that what did not fit the frame was omitted. When these children were asked what a gorilla would do if he met a person in the woods, each replied, "He would kill him." The children had been questioned a few days before reading this passage to determine what they already knew about gorillas. Their prior knowledge, rather than what the text said, predicted their recalls. Some poor readers were able to answer correctly that a gorilla would run away if he met a person in the woods. They noted the surprising information in their recalls and then answered the question correctly. Only the particular subgroup of poor readers that overrelied on background knowledge answered the question incorrectly. It is important to note that these children read the passages aloud, so that poor decoding is not a sufficient explanation for the phenomenon.

In a subsequent study, 28 expository texts about 150 words long were constructed concerning a topic from either science or social studies. These texts were constructed around two pieces of target information. Both pieces of information were judged likely to be

new information to children of this age. One new piece of information was judged to be consistent with children's prior knowledge schemata for the topics of the paragraph and was designated consistent information. The other piece of information contradicted information that was assumed to be part of the children's prior knowledge schemata and was designated inconsistent information. A question was constructed to test each piece of target information.

The designation of information as consistent or inconsistent was supported by the results of a questionnaire containing the questions without the text. This questionnaire was administered to 159 fourth and seventh grade students while the texts were presented to 164 fifth and sixth-grade students in the same school.

The texts were constructed so that in some texts both pieces of target information were explicitly stated while in others they were only implied. In addition, in some texts the inconsistent information was staged high (Clements, 1979) i.e., contained in the first paragraph and the consistent information was staged low, i.e., contained in the second or third paragraph. In other texts this situation was reversed. Analysis of the results indicate that there is a group of children whose comprehension is affected more by the consistency or inconsistency of the information than by its degree of explicitness or level of staging.

We have suggested that these children who overrely on prior knowledge fail to balance use of prior knowledge with use of structural linguisitc cues (Maria & MacGinitie, 1980). In subsequent investigations we plan to investigate which structural cues are not salient for these children as a guide to development of appropriate instruction.

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The Impact of Learning Disabilities On Post-School Adjustment

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Learning disabilities among school-age populations has been studied extensively since the 1960s. The majority of the studies have taken place in school settings with little attention directed to non-school settings. However, if learning disabilities are more than a school phenomenon, attention must now be directed to the impact of learning disabilities on post-school adjustment.

Although few studies have investigated the effects of learning disabilities over time, several tentative conclusions may be drawn from those that have been conducted. First, research on long-term effects of learning disabilities has not yielded consistent results. Second, the value of remedial programs for LD populations has not been established. Some studies report lasting positive effects of remedial programs while others report that these effects were not maintained. Third, occupational status and social adjustment have been measured narrowly. Information from a broader array of factors across personal, social, and vocational areas is needed to form a larger picture life adjustment. This study was designed to obtain information on a wide range of adult adjustment criteria from both learning disabled (LD) and non-learning disabled (NLD) young adults.

Two groups of subjects participated in this study: young adults who were diagnosed as learning disabled by their schools sometime during their elementary or secondary school career and young adults who were not labeled as learning disabled and did not receive special services while in school. A sample of 80 LD and 80 NLD young adults matched in terms of sex and year of graduation were obtained. Participation of the young adults was solicited by phone: a questionnaire mailed to them, completed and returned by mail. Forty-seven LD and 59 NLD young adults participated in the study.

The Young Adult Instrument used in this study was developed at The University of Kansas Institute for Research in Learning Disabilities. It included items in the following areas: demographic characteristics, family background, vocational characteristics, social/personal characteristics, medical/drug characteristics, and perceptions of past and future education.

The LD and NLD young adults in the study were quite similar in age (20.31 years and 20.59 years, respectively), all respondents were Caucasian, most had completed high school, and both groups had been out of high school for the same length of time. A greater proportion of males to females existed in the NLD group. In regard to educational attainment, LD young adults reported holding significantly fewer high school diplomas and bachelor's degrees than NLD young adults. Demographic and family background information indicated the samples were equivalent in nearly all respects. No differences were found in family background characterisitcs, such as educational level of the parents or status of parents' occupations during the young adult's school years.

One of the overriding factors in post-school success is vocational adjustment. The ability to get and maintain a job, the level of income one can obtain, and the type of job one gets affect nearly all other facets of a person's life. The employment status of both groups of respondents at the time of the study was similar in most respects. Seventy-seven percent of the LD group and 67 percent of the NLD group stated they were employed at least part-time. The LD sample had worked, on the average, more months and were working more hours per week than the NLD group. The LD young adult group displayed significantly lower mean job status than the NLD group.

Unemployment statistics for the groups were also similar. The mean number of months the LD group had been unemployed was lower than the average number of months unemployed for the NLD group; however, the range of months was slightly higher for the LD group. This trend was also evident in the amount of the time unemployed but not seeking work. None of this unemployment data was statistically

significant. One of the most striking differences among the vocational characteristics of the two groups was the extent to which they were happy with their current employment/unemployment situation. The LD sample reported they were neither happy nor unhappy while the NLD sample seemed to be fairly content with their employment situation. The degree of happiness reported by each group was apparently unrelated to earned income, since the distributions of income for each group were very similar. Approximately 75 percent of both groups earned $7,500 or less and nearly 60 percent of both groups earned $5,000 or less.

Successful adjustment in the vocational domain is typically a quantitative success; it ususally means bigger or better housing, the availability of more expensive or more frequent leisure activities, more or better clothes, etc. Successful adjustment in the social/personal domain is a qualitative success; it relates to the ability to establish and maintain interpersonal relationships and contacts with other adults. Possibly due to the relatively short time many of the respondents had been out of high school, few persons in either the LD or NLD sample reported they were, or had been, married. Of those married, most stated they were happy with their current marriage situation.

A second major component in social/personal adjustment is making friends and taking part in activities. Both groups reported approximately the same number of friends they could "talk to about things that are very important" to them. However, the NLD group reported having more friends they could go places with or share activities with. The groups also differed with respect to their involvement in different types of activities. Neither group was involved in church or religious activities, politics, community service, professional organization, or labor union activities. The NLD group was more active in social or fraternal activities and recreational activities than the LD sample. The NLD group also reported belonging to more community clubs and groups than the LD group.

In general, neither group seemed to be mobile. Approximately 90 percent of both groups had lived in two or fewer towns since high shcool (this could be a function of the relative recency of leaving high school). Both groups had approximately the same amount of contact with relatives, but the LD group stated they were much less happy with their contacts.

The two groups of respondents differed little with regard to the number of contacts with law enforcement or justice agencies. Thirteen percent of the LD group and 12 percent of the NLD group reported having been arrested. Although considerably more LD young adults reported they had been convicted of a crime by a court of law than the NLD sample, there was little difference in the samples related to time served in jail.

Few differences existed between the groups concerning drug intake and usage. The only area of difference between the groups was their use of prescribed medicine. Twenty-four percent of the LD sample stated they were currently using medicine prescribed by a doctor whereas only 9 percent of the NLD sample were using prescribed drugs.

Respondents were also asked to rate their degree of satisfaction with their school experiences. The LD group reported being "slightly happy" with the special help they had received in school. Results of a second question reinforced this position; the LD respondents reported they were less happy with their education in junior and senior high school than the NLD respondents. Neither group reported receiving much help in activities requiring skills in reading, writing or math since leaving school. The primary sources of help for both groups were parents, relatives, and friends. The LD group reported receiving less support from parents and relatives, but more support from professional counselors.

The two samples reported differing levels of educational plans and aspirations. More NLD (84 percent) than LD (67 percent) respondents stated they have plans for future educational activities. In general, the LD group reported lower aspirations than the NLD group.

Five variables were found significantly powerful to correctly classify seventy-three percent of the total sample of LD or NLD. These variables were: (a) satisfaction with employment, (b) degree of involvement in social or fraternal organizations, (c) degree of involvement in recreational activities, (d) use of prescribed drugs, and (e) plans for future education or training. These results are interesting in that no effects from parents (educational levels, occupation) were included in the final equation. Four of the five significant variables (all except drug use) are concerned, at least tangentially, with affective components of adjustment. Satisfaction with employment, degree of involvement in social and recreational activities, and plans for future education relate to perceptions of one's social and physical environment; the LD young adults were significantly lower than the NLD young adults on all of these variables.

Several factors must be considered when discussing the implications of this study. First, as with most retrospective studies, the possibility for bias stemming from the selection of the sample or the nature of the persons willing to respond is present. No claim is made that the sample is representative of all young LD and NLD adults. Second, at this stage in the development of research with the learning disabled, it is very difficult to locate large numbers of young adults who were identified as learning disabled when they were in secondary school. Related to the problem of sample size is the difficulty in statistically treating such a large number of variables. However, because this study was designed as a probe to provide a descriptive data base for future research, the decision was made to analyze each variable separately and risk an inflated error rate in order to derive as much information as possible from the data.

Only a few significant and meaningful differences

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Relationships Among Simple Measures of Reading, Spelling, and Written Expression and Performance on Standardized Achievement Tests

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One research component at the University of Minnesota Institute for Research on Learning Disabilities has as its purpose developing formative evaluation systems for teachers to use in improving learning disabilities service programs.

The development of measurement procedures that can be incorporated relatively easily into the daily routine of most teachers working in learning disabilities programs is deemed desirable if intensive monitoring of program effects on student performance is to occur. The importance of intensively monitoring program effects is that such monitoring enables us to more precisely determine the appropriateness of services provided to individual students. Given the requirement of P.L. 94-142 (Federal Register, 1977) that each handicapped student be provided an "appropriate educational program", continuous evaluation of a student's program is the only way to achieve substantive as well as procedural compliance with the law (Deno & Mirkin, 1980). Beyond compliance with the law, research on the use of intensive repeated measurement in formative evaluation of instruction has already yielded evidence bearing on its potential benefits (Bohannon, 1975; Crutcher & Hofmeister, 1975; Frumess, 1973; Lovitt, Schaff, & Sayre, 1970; Mirkin & Deno, 1979; Mirkin, Deno, Tindal, & Kuehnle, 1980). The research and development program at the University of Minnesota Institute for Research on Learning Disabilities is designed to systematically construct formative evaluation procedures for learning disabilities programs that specify:

(1) What behaviors to measure that validly index achievement for each IEP goal?
(2) How to repeatedly measure those behaviors reliably?
(3) Who should administer the measurement procedures?
(4) How often measurement should occur?
(5) How to obtain data most efficiently?
(6) How to use repeated measurements of student performance to increase intervention effectiveness?

Question 1 and 2 are critical when developing a formative evaluation system because, for several good reasons, commercially prepared standardized tests ordinarily used to assess achievement cannot be used routinely in a formative evaluation system to monitor performance. First, commercially produced standardized tests take too much time to administer. Second, an insufficient number of equivalent forms is available for any test to be used in the repeated measurement of performance required for formative evaluation. Third, the cost of using achievement tests repeatedly is prohibitive.

The purpose of this research was to try and overcome these difficulties by designing measures with the following characteristics:

(1) They must be *valid* with respect to widely used measures of achievement.
(2) They must be immediately *sensitive* to the effects of relatively small adjustments made in (a) instructional methods and materials, (b) motivational techniques, and (c) administrative arrangements (e.g., adjustments in grouping, setting for instruction, teacher/tutor, time of instruction, etc.).
(3) They must be *easy to adminster* by teachers, parents, and students.

(Continued on Page 22)

Profile Of The Learning Disabled Adolescent: A Mirror Image Of Other Low Achievers[1]

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The University of Kansas Institute for Research in Learning Disabilities

Since the creation of the field of learning disabilities in the early 1960s, a great deal of attention has been directed to the development of educational programs for learning disabled (LD) students. Although considerable data exist on LD students in elementary grades, little data is available on learning disabled adolescents and adults (Deshler, 1978). The establishment of programs for LD adolescents has occurred only in the last few years. However, as these programs evolved, they became primarily an extension of the elementary school models with little recognition of the unique problems accompanying adolescence and secondary school settings (Alley & Deshler, 1979).

The definitional problems that have plagued the field of learning disabilities for a number of years have also affected the identification process. Generally designed to distinguish between the student with learning disabilities and other students who are experiencing difficulty in school, these procedures are based on a number of assumptions about the LD population. Among those assumptions are the following.

First, LD individuals are considered to exhibit unique cognitive ability and academic achievement characteristics. Historically, learning disabilities has been considered a cognitive disorder that is manifested in poor academic performance (Johnson & Myklebust, 1967; Lerner, 1976). In addition, a common assumption is that older LD individuals are characterized by deficient social skills including social rejection, isolation, and ineptitude. Third, the condition of learning disabilities is considered to impact an individual's life beyond the school setting. Learning disabilities are now considered "not just a problem children out-grown" (President's Committee on the Employment of the Handicapped, n.d.), but a condition that affects adult adjustment as well. Finally, LD individuals are assumed to have average or above average intelligence. A common component of most definitions of learning disabilities, normal intelligence has been assumed from the early days of the field.

The University of Kansas Institute for Research in Learning Disabilities chose as its focus the learning disabled adolescent and young adult. A major portion of the research during the first three years of the Kansas Institute was designed to address many of the issues attendant to the definition, identification and life adjustment of LD adolescents. This research systematically examined the characteristics of LD and low-achieving (LA) students in public junior and senior high schools. From the large data base of the Institute, a profile of LD adolescents is beginning to emerge.

Cognitive and academic findings. A broad array of cognitive and academic variables collected from a variety of sources have been studied. We have examined products generated by LD and LA students, observational information, reports from regular and special class teachers and parents of LD students, and self-reports of LD and LA individuals.

Warner, Alley, Schumaker, Deshler, and Clark (1980, Research Report No. 13) studied the academic achievement and ability of LD and LA adolescents. In relation to academic achievement, the LD students performed significantly lower than LA students on reading, writing, and mathematics clusters at both the junior and senior high school levels. With respect to estimated IQ, LD students performed significantly more poorly than LA students at the senior high level, but not at the junior high level. A comparison of 234 LD and 222 LA adolescents on approximately 400 variables related to medical, social, academic, and environmental aspects of learning disabilities revealed that this cognitive/academic factor was the most powerful discriminator between the two groups (Warner, Alley, Deshler, & Schumaker, 1980, Research Report No. 20). When ability and/or achievement were controlled statistically, virtually no meaningful differences existed between the two groups on other factors (e.g., medical, social, etc.). The students' performance in writing was the single best discriminator.

The studies cited here and a number of others at the Kansas Institute emphasize the importance of cognitive and academic factors in describing the condition of learning disabilities in adolescents (Moran on writing, in preparation; Alley, Deshler, Mellard &

Warner on identification and component disabilities, Research Reports No. 2, 3, 9, 10 & 11; Skrtic on formal reasoning abilities, No. 7; Mathews, Whang & Fawcett on job-related skills, No. 4, 5 & 6; Schumaker, Sherman and Sheldon-Wildgen on study behaviors, No. 22; Alley, Warner, Schumaker, Deshler & Clark on academic behaviors, No. 16; Deshler, Schumaker, Alley, Warner & Clark on self-image and attributions, No. 14; Tollefson, Tracy, Johnsen, Borgers, Buenning, Farmer & Barke on effort attributions, No. 23). Although a cognitive/academic factor appears to best discriminate LD from LA and normal-achieving adolescents, no one cognitive/academic variable has been found sufficiently powerful to identify the condition.

Social skills and interaction findings. A considerable amount of research has been conducted on the social skills and status of LD students at the elementary level (e.g., the work of Tanis and Jim Bryan); However, most writing on social skills for LD adolescents are not data based (Alley & Deshler, 1979; Kronick, 1978).

Deshler, Schumaker, Warner, Alley and Clark (1980, Research Report No. 18) studied the peer relationships, extra-curricular activity involvement, and time use of LD adolsecents. Fifteen variables on peer relations were studied, but only two (related to how often students go somewhere with a friend) differentiated LD and LA students. Only one variable (of fifteen) related to extra-curricular activity involvement distinguished LD and LA students (sport spectating with friends). In short, this study indicated that, on the basis of social skills alone, LD and LA students cannot be differentiated from one another.

In a study conducted by Alley, Warner, Schumaker, Deshler, and Clark (1980, Research Report No. 16) teachers perceived LD junior high school adolescents as more positive than their LA peers on a number of social behaviors, including: brings materials to class, pays attention to lecture or discussion, completes both in-class and homework assignments, asks for help when appropriate, starts work when instructed, follows instructions, gets along well with authority figures, tries hard to improve when criticized, is appreciative of praise, and meets task deadlines with satisfactory products. The superiority of LD junior high school students was not confirmed by their parents or by teachers at the senior high school level. It may well be that the demands of the senior high school are at a level that the LD adolescent cannot attain irrespective of efforts.

Schumaker, Sherman and Sheldon-Wildgen (1980, Research Report No. 22) concluded that LD adolescents at the junior high school level are *not* social isolates. They found that LD students talked to as many peers and spent slightly more time in conversations than non-LD students.

Skrtic (1980, Research Report No. 8) in a study of the regular classroom interactions of LD adolescents at the senior high level and their regular class teachers found that LD students interacted with their teachers with comparable frequency to non-LD students. Although the differences that existed in the treatment of LD and non-LD students were in favor of LD students, LD students perceived their teachers as less approving and more disapproving of them than of their peers.

The picture that is beginning to emerge at this time from our research on the social skills and interactions of LD adolescents is a different one than presented in much of the literature on this population. In essence, LD adolescents do not appear to be social isolates in school situations. On the contrary, LD students have friends, enjoy positive interactions with them as well as with teachers, and participate in social related activities. However, these findings may not be presenting the entire picture on the social status of LD adolescents. Strong conclusions cannot be drawn about LD adolescents' social behaviors until more specific measures of their social interactions with peers can be taken.

Out-of-school findings. Since its inception, the Kansas Institute has acknowledged the importance of studying LD adolescents and young adults in out-of-school settings. Given the opportunity to drop out of school, come into contact with the court system and the necessity to deal with the challenges of job placement and adult adjustment, an important goal of our Institute has been to study problems related to LD individuals in non-school environments.

A retrospective study conducted by White, Schumaker, Warner, Alley and Deshler (1980, Research Report No. 21) is described elsewhere in this issue. Briefly, the authors concluded that the LD young adults appear to be adjusting as well as non-LD young adults in a number of important areas (e.g., getting and maintaining employment, having friends, etc.) However, LD young adults were less satisified with their employment situation and their contacts with parents and relatives. They were much less involved in recreational and social activities and few had plans for further education or training. Mathews, Whang, and Fawcett (1980, Research Reports 4, 5, and 6) found that both LD and non-LD senior high students were deficient in target job-related skills relative to successfully employed young adults. When the LD and non-LD groups were compared, non-LD students performed better on skills which were primarily non-social in nature. Factors related to social skills in job situations did not, on the whole differentiate LD from non-LD adolescents. The findings of these studies suggest the importance of teaching job-related skills to adolescents who are about to enter the job market.

A prerequisite step to obtaining a job in many employment areas is the successful completion of certain entrance requirements. A study conducted by Harnden, Meyen, Alley and Deshler (1980, Research Report No. 24) analyzed the performance of LD adolescents on a set of employment entrance requirements, as measured by the Armed Services Vocational Aptitude Battery. Based on these scores, only 29.2% of the LD students qualified for entrance into the

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Modifying Instruction to Minimize the Effects of Learning Disabilities

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The effects of instructional processing demands in producing learning disabilities. Learning disabilities can be usefully conceptualized as an interaction of the processing dysfunctions of the individual and the processing demands of the instruction. This conceptualization suggests that one major way of minimizing learning difficulties is by modifying instructional demands to keep them within the capabilities of learning disabled children. Such an intervention is directly under the control of the teacher; however, empirical studies as well as examination of many basal reading series suggest that while their processing demands are within the capacity of the average learner, they often "overload" the processing capacity of learning disabled children. Incidental and/or supplementary activities, while enhancing the interest level for normal learners, can also interfere with the LD child's ability to process the central focus of the lesson. In addition, learning principles essential to effective learning by LD children are seldom systematically applied in basal series. For example, the amount and type of practice and review incorporated in most basal reading lessons is insufficient and often confusing for disabled youngsters. Lack of discrimination practice to overcome confusion and lack of practice in high level combinations of skills prevents whatever has been learned from being retained and applied in the act of reading and spelling.

Focus of Research. The research of the Basic Reading and Spelling Task Force has focused on instructional variables which affect the achievement of LD youngsters. It was hypothesized from the outset that systematic applications of learning principles, adapted specifically to the needs of LD children, would help to circumvent processing deficiencies. Over the last two years, the task force has developed effective demonstration strategies based on these principles. These interventions can be applied to teaching various skills in a variety of instructional situations and can be utilized with many types of materials. In a series of studies, sample lessons based on these principles, have been piloted, refined, and tested by approximately 150 teachers on over 500 LD children. Most of the LD children have been in elementary school resource rooms and special education classes but the procedures are particularly suited to mainstreamed LD children.

"LD efficient" lessons minimize effects of disabilities. Results of investigations demonstrated that LD children in small group instruction over three weeks could learn and apply 90% of the sight words and over 70% of the spelling words taught under "LD efficient" instruction. Furthermore, phonic elements introduced in both spelling and reading lessons were applied to over 60% of the new words which were used on transfer tests.

Nature of "LD efficient" lessons. In order to improve instruction for LD children, we incorporated into the lessons a number of operationalized learning principles: focusing upon what is to be learned, controlling the amount of material to be learned, reducing response competition and overloading, giving immediate informative feedback, providing practice until mastery is achieved, distributing practice and review, providing discrimination training and training for transfer. Mastery learning, retention, and application to actual reading and spelling were the underlying goals of "LD efficient" instruction.

To insure mastery, several investigations focused on the optimal unit of instruction for LD children. Interestingly, while most disabled youngsters were able to learn, retain, and apply five or more sight words at one time, spelling performance was optimized when the unit dropped to three words at a time. In phonics lessons, children performed well on a unit of one phonic element per week which was introduced in words that followed specific patterns and then practiced in mixed word lists.

While optimal unit size makes a significant impact on achievement by reducing the potential for overloading, it is also important to consider the issue of response competition. Response competition occurs when a child is expected to select one response from a large number of alternatives. In order to reduce response competition, items can be temporarily dropped as they are learned so that the child focuses only on a few items at a time. A study of LD and non-LD subjects examined the learning of paired-associate symbol-word pairs. The results suggested that temporarily dropping learned items improves the performance of LD children more than it improves the performance of non-LD peers. A field investigation which looked at LD children's performance on sight word lessons with and without reduced response competition confirmed the value of temporarily

dropping items from learning trials once the items are learned to a criterion. With a procedure that incorporates reduced response competition, LD youngsters demonstrated less variability in their post test performance and quickly mastered the material.

Built into "LD efficient" instruction are strategies for correcting errors which provide focus and informative feedback, (e.g., modeling the correct response, focusing on the specific error made, reintroducing the correct response within context of word or word part, etc.).

Specific distributed practice, cumulative review procedures, and transfer training were included in every day's lesson. Skills learned in the three weeks are all retained equally well as a result of the distributed practice. Skills are applied successfully as a result of the transfer for training.

The problems of implementing the principles and procedures over sequences of skills for a year or more are complex and difficult. Long term retention and application of a multitude of interactive skills may be far more difficult than initial learning, short term retention, and application. However, the success achieved in applying sequences of skills over three week lessons makes us cautiously optimistic. We are currently developing a kit that any teacher can use to adapt the program and materials being used in class or remedial group to make them more "LD efficient." With appropriate instruction, our research suggests that the majority of LD children can develop adequate basic reading and spelling skills in small group instruction, many in regular classes.

Research at the University

(Continued from Page 7)

these investigations suggest that training the learning disabled child to effectively use attack strategies depends upon providing the child with adequate preskills and on the appropriateness of the strategy to the task. It is encouraging to note that generalization across tasks has occurred when both preskills and appropriate attack strategies were provided. Additional research on training learning disabled children to use academic attack strategies has been planned. One such investigation will focus on identifying procedures for efficient training for preskills for arithmetic attack strategies. Other studies will concentrate on identifying appropriate attack strategies for a variety of arithmetic skills and teaching children to use them. Studies evaluating attack strategies for reading comprehension and spelling are also planned. Strategy training will also be compared to other common approaches for teaching arithmetic skills to learning disabled students. Thus, an attack strategy for teaching multiplication will be compared to a behavioral system based on cummulative mastery of subsets of arithmetic facts and, if possible to the multiplication track of a commercially available arithmetic program.

Effects of home-based reinforcement. The first project in this area will investigate changes in attitudes of parents toward their child and toward their role in the educational process occuring as a result of participation in the home-based reinforcement program. A second project is designed to determine whether parents can become agents of change for cognitive behavior shown by their children during the course of a home tutoring program.

Research findings from the Virginia Institute have been disseminated through articles and chapters appearing in a variety of journals and books as well as through presentations at a variety of professional conferences. Results of studies have also appeared as Technical Reports which are available for a nominal cost from the Institute. For additional information, write:

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Psychoeducation Decision-Making

(Contined from Page 9)

decision makers eligibility decisions.

E. **Classification Decisions**
- Subjects rated the normal child as very likely to be LD, likely to be ED, and very unlikely to be MR.
- In all but three conditions, when the child was classified, the most commonly used classification was LD. Three exceptions were conditions 4, 11, and 16 (all of which had a behavioral referral statement). In these conditions the child was classified as ED as often or more often than LD.
- Some variability was evident in the ways in which groups of professionals classified students.
- Types of classification decisions made did not vary as a function of knowledge about assessment.

F. **Prognostic Decisions**
- Almost two-thirds of participants felt that the child would have difficulty in reading; less than half felt difficulties might occur in math.
- Naturally-occurring pupil characteristics did not influence prognostic decisions.
- Knowledge of assessment and professional role did not influence prognostic decisions.

G. **Placement Decisions**
- Regular class with resource teacher consultation and part-time resource room were the most frequently recommended educational settings.
- Naturally occurring characteristics, professional role, and knowledge about assessment did not influence the placement decisions made.

H. **Factors Influencing Decisions**
- Scores on achievement tests and intelligence measures and the disparity between the two were viewed as most influential.

- Scores on personality tests and behavioral recording data were reported to have greater influence for students referred for behavior problems than for academic problems.
- Reason for referral was perceived as having more influence than the naturally occurring factors.

I. **Expectations**
- Professional's estimates for various handicaps were far in excess of actual incidence figures and prevalence estimates.
- Minority and low SES children were expected to have the highest percentage of handicap.
- School psychologist's estimates were more accurate than other professionals.
- Girls and high SES children were expected to have the fewest handicaps.

J. **Efficacy Simulation**
- 88% of the participants said the simulation approximated "real life" decision making.

Summary and Conclusions

Each year approximately 250 million standardized tests are administered to 44 million school-aged youngsters; obviously, school personnel feel that educational decision-making is aided by assessment results. When analyzing current assessment practices, many issues are apparent. In this study, a set of questions addressed to specific issues in psychoeducational decision-making was addressed.

The findings of this investigation have important implications for practice and training. First, the assessment and decision-making process is characterized by considerable potential abuse. In this study serious problems were surfaced in test usage, the use of technical manuals, and the making of eligibility, classification, prognostic, and placement decisions.

It is important that teachers and diagnostic personnel recognize the importance of the decision to refer students for evaluation. In this study more than half of students with test scores indicative of normality were declared eligible for service.

Both pre-service and inservice training in assessment and decision making need to address very quickly the issues raised.

Convention registration materials have been mailed to all state CEC members.

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were reported by the groups. In the area of vocational adjustment, LD students were holding jobs with less social status and were less satisfied with their employment situation. Socially, the groups differed mainly with respect to their degree of involvement in recreational activities and social organizations and their degree of satisfaction with parental contacts. LD young adults reported using more prescription drugs and were more often convicted of crimes. In addition, LD young adults were less satisfied with their school experiences and had lower aspirations and fewer plans for future education and training. LD young adults also reported receiving less support from parents and relatives and more from professional counselors.

In contrast, the groups were very similar in a number of areas. Both groups were holding approximately the same number of full-time jobs, were earning about the same amount of money, and had spent about the same amount of time unemployed. Both groups had a number of friends, more persons in both groups live at home than any other place, and most have frequent contact with parents and relatives. The groups did not differ in the amount of alcohol and drugs (other than prescription drugs) they use or in the number of arrests or time served in jail.

Although conclusions based on these results must be considered tenative, several trends are evident. First, the adjustment of the LD sample seems to be comparable to that of the NLD sample in vocational (getting and maintaining employment) and social (having friends) areas. The second trend relates to "quality of life". LD young adults reported less satisfaction with their employment situation and their contacts with parents and relatives. They were much less involved in recreational and social activiites. Few had plans for further education or training. These data suggest that although LD young adults are "making it" in a number of important areas, they seem to be much less satisfied with some areas of their lives. This can be related, in part, to the way in which past experiences have shaped their present attitudes and values, the difference between their expectations for adult life and what they have encountered, or a combination of these. In any case, the schools have neither adequately prepared the LD young adults for the social/affective facets of adult life nor taught them what to expect when they leave school.

The research discussed here was conducted by the University of Kansas Institute for Research in Learning Disabilities and was supported by a contract (#300-77-0494) with the office of Special Education, Department of Education, through Title VI-G of Public Law 91-230.

Further informaton about this study may be obtained by writing the Coorinator of Research Dissemination, Institute for Research in Learning Disabilities, The University of Kansas, 313 Carruth-O'Leary Hall, Lawrence, Kansas 66045.

Relationships Among

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(4) They must include many parallel forms that are *frequently administrable* (daily, if necessary) to the same student.
(5) They must be *time efficient.*
(6) They must be *inexpensive* to produce.
(7) They must be *unobstrusive* with respect to routine instruction.
(8) They must be *simple to teach* to teachers, parents, and children.

After careful review of the literature on assessment of reading, spelling and written expression a set of behaviors were selected and measurement procedures developed to test student performance. The behaviors were as follows:

(1) Reading aloud from word lists and in context
(2) Giving the meaning of words and filling in the blanks in paragraphs (Close Comprehension)
(3) Spelling words from dictated word lists and a story
(4) Writing a story based on a picture stimulus, story starter or topic sentence

The measures used to score student performance included: (1) counting the number of words read correctly and incorrectly per minute; (2) counting the number of words defined correctly and the number of correctly filled in blanks in the paragraphs; (3) counting the number of words and letter sequences spelled correctly; (4) counting the total number of words written as well as the number of large words, mature words and T-units in the story written in response to the stimulus.

Standardized achievement tests in reading, spelling and written expression were then administered to each student and student scores on these measures and the formative measures were correlated. More than 400 students were tested in a series of nine different studies. Approximately forty percent of these students were receiving Special Education service in a learning disabilities resource room program. The results of these analyses revealed evidence of the validity of the formative measures as indices of achievement in reading, spelling and written expresssion.

Specifically, in reading, the rate of saying correct words from isolated word lists, from words underlined in context, and from all words in basal reading passages were reliable measures possessing a high degree of concurrent validity with performance on standardized achievement tests. In spelling, the rate of letters spelled in correct sequence and the rate of words spelled correctly in response to a one to three minute dictated word list were both reliable measures highly correlated with standardized achievement tests. Again, the validity was high regardless of what words were dictated. In written discourse, number of words written, number of words spelled correctly, number of letters spelled in correct sequence, and number of mature words used in response to a picture or story starter were reliable and valid indicators of achievement. In this case a 3-5 minute writing sample was required for best results. The concurrent validity of all academic measures was high regardless of the stimulus materials used and the duration of the sample. In addition, comparisons of performance of regular and special education resource program students on the measures in grades one through six also revealed marked differences between the two groups, and across grades.

Our hope is that regardless of personal philosophical, theoretical, historical, and current situational constraints those responsible for ensuring the quality of learning disabilities services will continuously evaluate the impact of those services on the academic and social behaviors of their individual students. The measurement procedures that are being developed are an important first step in the development of such an evaluation system.

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Profile of the Learning

(Continued from Page 18)

Armed Services compared to 80% of the non-LD population.

Studies related to the juvenile justice setting reveal an LD incidence level of 3% (Deshler & Alley, in preparation). In addition, a study being conducted by Hazel, Schumaker, Sherman, and Sheldon-Wildgen (in preparation) is designed to study juveniles who have committed more serious offenses than those in the Deshler and Alley study by assessing the percentage of LD youth at intake into the juvenile court.

Our research at this stage has illustrated some of the unique aspects of dealing with learning disabled individuals in non-school environments. Specifically, it is apparent that the identification of disabled populations in out-of-school settings is quite difficult. Many of the curriculum demands and tasks that precipitated learning disabilities within school settings are often not sufficiently powerful to call attention to an individual's learning disability in a non-school setting.

Findings related to intelligence. LD students are traditionally characterized as having average ability. This attribute was not substantiated in a study of 246 LD and 229 LA students (Warner, Alley, Schumaker, Deshler, & Clark, Research Report No. 13). Based on an estimated IQ score, the depressed performance of the LD group as a whole is evident. For both the junior and senior high LD samples, the mean performance is substantially below the normative mean of 100.

Summary. the data described here supports a major assumption in the field learning disabilities that LD adolescents are characterized by a uniqueness in cognitive/academic functioning. At this point, however, the data lead us to question some other basic assumptions particularly as LD adolescents are compared to other adolescents who are experiencing difficulty in school. Our data show that LD adolescents are not markedly different from LA adolescents in social skills and interactions. Also, in most respects, the post-school adjustment of LD young adults is similar to that of non-LD young adults.

These data also raise questions about the assumption that LD students are of normal intelligence. At both the junior and senior high school level, LD students performed substantially below the mean.

These data raise an important question related to services for LD students: Why, if LD and LA students are functionally so similar, are some youngsters chosen as LD and others are not? The answer probably lies as much, if not more, in the intricacies of the identification process as in actual learner characteristics. The relevance of this picture of LD adolescents and the issue of identification to the development of effective interventions for LD adolescents is obvious. Progress in the design of interventions will be facilitated by the development of an instructional theory that relates student attributes, setting demands, instructional processes and learner outcomes.

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[1]The research studies reported here were conducted by the Unversity of Kansas Institute for Research in Learning Disabilities through a contract (OSE #300-77-0494) with the Office of Special Education, Department of Education, through Title V1-G of Public Law 91-230.

Complete results of the studies mentioned are contained in the Research Reports of the Kansas Institute. Further information about these studies may be obtained by writing the Coordinator of Research Dissemination, Institute for Research in Learning Disabilities, The University of Kansas, 313 Carruth-O' Leary Hall, Lawrence, Kansas 66045.

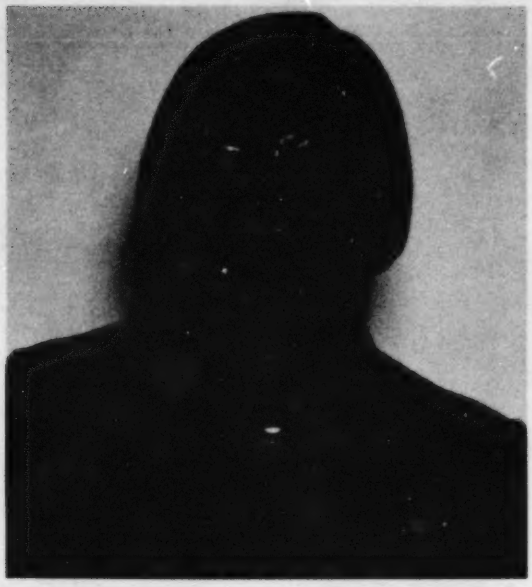
Viewpoint

(Continued from Page 3)

technical reports, monographs, and newsletters.

1) Teachers College, Columbia Unversity
   Frances P. Connor, Director
   Research Institute for the Study of Learning Disabilities
   Box 118
   Teachers College, Columbia University
   New York, N.Y. 10027
   Central focus: the effects of information processing deficits on performance in the curriculum areas of basic reading, reading comprehension, spelling, and arithmetic, as well as on the ability to learn and recall new information.
2) University of Illinois—Chicago Circle
   Tanis Bryan, Director
   Chicago Institute for Learning Disabilities
   University of Chicago at Chicago Circle
   Box 4348
   Chicago, Illinois 60680
   Central focus: language and reading problems, social behaviors, and recall performance of learning disabled children.
3) University of Kansas
   Donald Deshler, Director
   Research Institute in Learning Disabilities
   University of Kansas
   Room 313 Carrut-O'Leary
   Lawrence, Kansas 66045
   Central focus: identification and treatment of learning disabled adolescents.
4) University of Minnesota
   James Ysseldyke, Director
   Institute for Research on Learning Disabilities
   350 Elliot Hall
   75 East River Road
   University of Minnesota
   Minneapolis, Minnesota 55455
   Central focus: issues in identification of, assessment of, placement of, and program monitoring for learning disabled children.
5) University of Virginia
   Daniel Hallahan, Director
   The Learning Disabilities Research Institute
   164 Rugby Road
   University of Virginia
   Charlottesville, Virginia 22903
   Central focus: problems of attention in learning disabled children; development of "Cognitive Behavior Modification" interventions including self-instructions, rehearsal of strategies, and awareness of how to simplify tasks.

"Message From The President"



Janet L. Jacobs, Ed.D.

It is with great pride that I begin my year as President of the New York State Federation of the Council For Exceptional Children.

I have always been impressed by the quality of professionals involved in special education in my own local area. This positive impression of special education personnel remained with me and strengthened as I extended my horizons in the special education state network through my work last year as President-Elect.

Thanks to its scores of dedicated professionals the field of special education has made great strides since its uncertain beginning. We must not rest secure in the knowledge of how far we have come, however. Although firmly established special education now faces greater challenges with increased federal legislation and often decreased financial allocations.

I believe it is time for each of us next year in the International Year of the Handicapped, when greater attention will be focused on "our people," to recommit ourselves to our chosen field and work with the zeal typical of new professionals to the field. In this rebirth let us each make a conscious effort to take an active role in our local CEC chapter, help to recruit new members, and increase the amount of service work conducted by each chapter. Strengthening of individual local chapters will eventually lead to a strengthened state organization. At last count we had the fourth largest state membership in the nation, next year we can be NUMBER ONE!

Professional News

Dr. Judith A. Bondurant (Chapter 402) is now Treasurer of NYS-CEC, replacing Stan Johnson who took a new position in Alaska. Dr. Bondurant is presently Assistant Professor in the Exceptional Education Department of Buffalo State College. She is a past treasurer of Chapter 402 and was the Western New York Chairperson this past Spring for the Week of the Young Child under the auspices of the Early Childhood Education Council.

Teachers/administrators working with or interested in developing alternative programs for *Severly Handicapped/Hearing Impaired Adolescents* can be part of an in-service training program emphasizing community based programming, a life skills curriculum and a teacher/counselor model. For more information contact Christine Pawelski or Alan Groveman, Lexington School for the Deaf, 30th Avenue and 75th Street, Jackson Heights, NY 11370, (212) 899-8800.

CEC in Nova Scotia hosts the 4th Canadian Congress October 15-18, 1980. The opening address is by Dr. David Roy and the keynote speakers include Parthenia Smith, Ron Goldman, Ann Kennedy and Fred Weintraub. For further information write: CEC 4th Canadian Congress, P.O. Box 2436 M, Halifax, Nova Scotia B3J3E4.

"Our Place" is a proposed TV series designed for cable and ETV attempting to offer hearing impaired viewers a format of discussion, dissertation, demonstration and potpourri of small talk. The proposed series will use the medium of Total Communication, emphasizing the use of sign language. All those interested in offering suggestions, comments, etc. should contact "All Join Hands, Inc." 17 Saw Mill River Road, Hawthorne, NY 10532. Those interested in possible participation should include a resume!

Letters to the Editor

Editor: I hope this hasn't been so delayed as to be irrelevant but there was a puzzling and notable omission from the material in what was otherwise much that was valuable in your Spring issue. While it was undoubtedly enlightening regarding ways of handling, controlling, and teaching the Behaviorally Disordered and/or Emotionally Handicapped child, there was no mention of "treatment" and its relation to all of the above. For example, it is essential that at some points such children must be returned to their physicians for medication adjustment.

Is one to take this as a purposeful policy to avoid unnecessary polemics? Or is this an expression of a belief, not uncommon in some circles, that education is the treatment of choice for the non-psychotic child and okay for the "non-stop" child.

This is not a totally theoretical matter. As professional people and taxpayers also, should we not be concerned about a local educational authority's liability for damage suits in cases where children

"treated" only by the school after being labelled EH, are guility of various transgressions?

Harold Blau, Educational, Ph.D.
Consultant
Hollis, N.Y. 11423

Response by Issue Editor: Regarding Mr. Harold Blau's letter may I note that the goal of the Spring 1980 issue of *The Forum* as indicated in "Viewpoint", was "To offer a 'forum' to various individuals whose concerns are immediate and real and who have seen or expect to see changes in the education of the behaviorally disordered/emotionally handicapped." The focus was clearly educational. To the extent that the educational approaches described are therapeutic the issue dealt with treatment. "We consciously did not attempt to explore the enduring concerns that characterize competing ways of treating behavior disorders/emotional handicap in a strictly clinical sense," (Viewpoint again), only because it was outside our intended focus, and not because of any bias against treatment in a clinical or medical sense.

Joseph Andreacchi, Ed.D.

Editor: I've been intending to send this letter for months but somehow didn't.

I am *enthused* with the contents of *The Forum.* It has a greater and more meaningful relationship to reality in the special education of children than any other periodical that I read. I look forward to each issue.

As you may know, I retired from the Board of Education a year ago and have been teaching full time as an Associate Professor at C.W. Post. Since I handle the practica courses in ED. and M.R., I use many of the articles in class discussion.

Betty Osmen's article and Elaine Lieberman's article were very well received by the graduate students most of whom teach in the City or Long Island.

May I suggest that you consider one issue that would focus on a topic that would involve the perceptions and experiences of classroom teachers. For instance, many of my graduate students have reported mainstreaming children that defy all the neat guidelines I frequently read about in the literature and yet the process works.

Anyway, it was not my intent to discuss special education with you as much as to tell you how enthused I am with *The forum.*

Keep it coming!

Dr. Albert Budnick
Forest Hills, New York 11376

The Editor thanked Dr. Budnick for his letter, and asked him to please edit a future issue of The Forum as per his suggestions. Dr. Budnick has accepted.

Consortium Convention 1980

Concord Hotel

CALENDAR OF EVENTS

Thursday, November 13, 1980	
Convention Registration	2:30-5:30
Dinner	7:00
Executive Committee Meetings	8:30
Friday, November 14, 1980	
Breakfast	8:00- 9:00
Convention Registration	9:30-12:00
	1:30- 5:00
Commercial and Classroom Exhibits	10:00- 5:30
Film Theatre	10:00- 5:30
Lunch	12:30- 1:30
Plenary Session	2:00- 3:30
Cracker Barrels	3:45- 5:00
President's Cocktail Party (Sponsored by AAMD&CEC NYSTOH)	6:00- 7:30
New Orleans Mardi Gras Theme Dinner (Bring your own costume)	7:30
Saturday, November 15, 1980	
Convention Registration	8:00- 1:00
Breakfast	8:00
Commercial and Classroom Exhibits	9:00- 5:30
Film Theatre	9:30- 5:30
Session I	9:30-10:45
Session II	11:00-12:15
Lunch	12:30- 1:30
Session III	2:00- 3:15
Session IV	3:30- 4:45
Cocktail Party (Sponsored by Concord)	6:30- 7:30
Banquet Dinner	7:30
Sunday, November 16, 1980	
Breakfast	8:30
Meetings	
CEC	
Leadership Training Institute	10:00-11:30
Delegate Assembly	11:30- 1:00
A.A.M.D.	
Annual Meeting	10:00-11:00
Executive Committee	11:00-12:00
Teachers of the Handicapped	
Annual Meeting	9:30-11:30
Executive Board Meeting	11:30- 1:00
Lunch	1:00- 2:00

Friday Afternoon, November 14, 1980
Plenary Session 2 PM-3:30 PM

"Action, Concern, Transition—Issues for the 80's" is the topic which speakers from the U.S. Department of Education and HSS, as well as national agencies, will address. Responses thus far received verify that the decision makers at the federal agency and national private agency level—Deputy Commissioner, Program Directors, bureau chiefs—will share their perspectives on the next decade of services to the exceptional.

Cracker Barrel Sessions 3:45 PM-5:00 PM

Small group discussion session with the Plenary session panelists, their counterparts on regional and state levels, and others will permit participants to pursue in depth specific issues of interest.

Sample Abstracts from the Saturday Sessions

Teacher burn out is a phenomena that occurs when pressures and anxieties begin to have serious adverse effects on teachers' personal and professional lives. A recent NEA poll states that one-third of all teachers would not teach if they were starting over. This open discussion will focus on issues and outcomes relative to teacher survival and success.

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Presentation will focus on the activities carried out at the state level during the last two years into local activities through

cooperative efforts. Examples of locally implemented programs will be identified.

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The focus of this presentation is on improving communication between consumers and providers of services about the sexuality of the handicapped. A panel consisting of a parent, a retarded individual, a social worker, a nurse, and an educator will address issues and problems around dating, sexual friendships, marriage, and parenthood. There will be opportunity for audience participation and for drafting of resolutions.

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The purpose of this presentation is to specify teachers' adjusting to children as a most critical stage in the process of children's learning. This concept emerges from the prospective that learning is an active communication process in which two expressive behavioral sources interact. Those interactive sources are the teacher and the child.

Teachers' adjustments will be analyzed within the framework of Piaget's Equilibration Model and Bettleheim's Psycho-Developmental Theory. Video tapes will be presented illustrating how the teacher of learning disabled students can create structured methods and materials (such as problem solving events) from principles as advanced.

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Bringing Project G.A.E. and its basic philosophy to this type of educational setting even though it was written with a multi-handicapped child in mind. A systematic effort is made to help a student understand himself, get in touch with his own feelings, and monitor his own behavior. Each child is helped to find the best medium, especially in the visual arts, to gain confidence in and control of himself, so that eventually it can be used as a vehicle for self-expression.

****

This presentation will be a report and discussion on the findings of a recent study on "Community Placements" done at two New York State Developmental Centers. This vital discussion on community placements as they affect individuals both within the facility, as well as in the community, is too important to miss.

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This workshop will concentrate on practical and effective techniques for the classroom and the resource teacher to use in helping the handicapped student make the transition from oral to written communication. Successful modification techniques, methods, writing programs, solutions for every day creative writing problems, including grammar, spelling, and handwriting deficits will be discussed. The language experience approach and aides in helping the older student meet writing competency state standards as well as current research in writing disabilities will be discussed.

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The purpose of this panel is to present the process of program review conducted by Regional Associates throughout New York State in 737 school districts, 44 BOCES, and over 200 approved private schools. Regional Associates also act as resource consultants to parents, school administrators, teachers, and local county and municipal offices concerned with educational services to the handicapped.

This panel will not only present an overview of the review process, but it will also focus on problems dealing with emerging program alternatives, especially in the area of specific learning disabilities.

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Saturday Morning, November 15, 1980
9:30 A.M. to 10:45 A.M.

THE ROLE OF OCCUPATIONAL AND PHYSICAL THERAPY IN SPECIAL EDUCATION IN THE PUBLIC SCHOOLS—Rosalyn Reich, Associate, Bureau Spec. Program Review, Chairperson.

TAXONOMY OF SPECIFIC LEARNING DISABILITIES—Jonathan Gould, Whitney, M. Young, Jr., Rehabilitation Clinic, and Elliot Rothman, SUNY-Albany

JUDICIAL MANDATES CONCERNING CIVIL RIGHTS OF THE HANDICAPPED—presenters from a nationally recognized Law Center for the Handicapped

SERVICES FOR THE HANDICAPPED LINKING SPECIAL EDUCATION, OCCUPATIONAL EDUCATION, AND VOCATIONAL REHABILITATION AND SUPPORT SERVICES—Robert J. LaCassee, Supervisor, Occupational Education for the Handicapped

A DEVELOPMENTAL APPROACH TO TEACHING MATHEMATICS—Judi Aronson, Project Associate, Special Education SETRC, N.Y.C.

SEXUALITY:SIGNIFICANT ISSUES—Carl S. Wilks, Ass't Professor, Unversity of Tennessee School of Social Work

TEACHER BURNOUT—SOCIETY'S DILEMMA—Roger Berman, Project Associate, Special Education SETRC, N.Y.C.

GROWTH THROUGH ARTS EXPERIENCE (G.A.E.)—A HUMANISTIC APPROACH TO EDUCATING THE SEVERELY MULTI-HANDICAPPED CHILD—Lois Saperstein, Art Consultant, United Cerebral Palsy

INTEREST AREA CONTRACTS: DEVELOPING CURRICULUM MATERIALS FOR LEARNING DISABLED STUDENTS—Sally S. Quinby, Past President N.Y.S.D.C.L.D., & C. Richard Thompson, Resource Room Teacher

RELIGIOUS NEEDS AND RELIGIOUS EDUCATION—Jacob Goldgraber, Ass't Professor, SUNY-Binghamton

THE MINORITY CHILD WITH A DUAL HANDICAPPING CONDITION—GROUP HOME RESIDENT/SPECIAL EDUCATION STUDENT—Pearl Raplye, Dir. Group Homes, Wiltwyck School, Ossining, N.Y., and Marilynn Pam, Special Education Adm., Southern Westchester B.O.C.E.S.

11:00 A.M. to 12:15 P.M.

CLASSROOM ON WHEELS—Carol W. Skydell, Project Director, & Russell V. Riggie, Principal, Center for Community Adjustment, Nassau B.O.C.E.S.

IMPLEMENTING THE JUDICIAL MANDATES—Marian B. Ball, Director, Suffolk Developmental Center, & Joseph T. Weingold, Executive Director, N.Y.S.A.R.C.

STRUCTURING THE ENVIRONMENT FOR CHILDREN WHO ARE TROUBLED—Susan E. Kosberg, Special Education Teacher, Northern Westchester B.O.C.E.S., Myrna K. Harris, Special Education Teacher, Montrose, N.Y., & Bernie Kosberg, Principal, The Orchard School, Yonkers, N.Y.

THE ARTS IS MORE THAN A NOUN—Clydene Bochs and Jean T. Papandrea, Schuyler-Chemung-Tioga B.O.C.E.S.

MEDICAL GENETICS: CURRENT PRACTICES AND RECENT ADVANCES—Jessica G. Davies, M.D., Assoc. Prof., Clinical Pediatrics, Cornell Univ. College of Medicine

BRIDGING THE GAP: THE RESOURCE ROOM PROGRAM—Elaine K. Thompson, Administrator, Resource Room Programs, N.Y.C. Board of Education

PHOTO-COMMUNICATION: PARENT/TEACHER INVOLVEMENT PROGRAM—Linda M. Hillman, Speech Therapist, B.O.C.E.S., Elmira, N.Y.

THE IMPACT OF DE-INSTITUTIONALIZATION ON MENTALLY RETARDED PERSONS & THEIR FAMILIES—Barry Willer, Ass't Prof., Div. of Community Psychiatry, SUNY—Buffalo

BASIC OCCUPATIONAL EDUCATION FOR THE HANDICAPPED—Anthony J. Franqueira, Assistant Director, Southern Westchester B.O.C.E.S.

BEHAVIORAL VIEW OF ATTENTION—Barry E. McNamara, Ass't Professor, Department of Special Education, Hofstra University

SUMMER SCHOOL FOR SEVERELY HANDICAPPED STUDENTS—Thomas Clift, Director of Special Education, Syracuse City School District, Carol Clancy, Principal, Special Education Summer School, Syracuse, & Margaret O'Hara, Parent

Saturday Afternoon, November 15, 1980
2:00 P.M. to 3:15 P.M.

THE K.I.D.S. PROJECT: TEACHING THE REGULAR CLASS CHILD ABOUT THE HANDICAPPED CHILD THROUGH PUPPETS—Marian F. Dwyer & Lollie Abrahamson, Island Borough Developmental Office

THE INVERSE PRINCIPLE: TEACHER ADJUSTING TO CHILDREN—M. Alexis Papish and Nelson Moore

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CLASSROOM MANAGEMENT: A DYNAMIC DISCUSSION OF CLASSROOM MANAGEMENT, COMMUNICATION, AND ATTITUDE DEVELOPMENT—Sister Ann Bryan Smoklin, Director of Education, Division of Consultation Centers, Albany, N.Y.

READING PROBLEMS AMONG EMOTIONALLY DISTURBED CHILDREN: LEARNING DISABILITY OR BEHAVORIAL DISORDER?—Estelle L. Fryberg, Ass't Professor, Department of Education, Manhattan College

PARENT AND PROFESSIONAL: WORKING TOGETHER—Shelley Hendlin, Director, Project "Find Me", N.Y.C. Bd. of Education & Betty Pendler, N.Y.S. A.R.C.

TRIALS OF METHOD: AN ESSENTIAL ADDITION TO THE ASSESSMENT OF LEARNING DISABILITIES—Phoebe Lazarus, Adjunct Professor, Adelphi University

COMPUTERS IN SPECIAL EDUCATION—Rick Kern, Computer Center Coordinator, Orchard School, Robert E. Spiro, Pres., ICSS Limited, N.Y.S., and Steven Storman, System Analyst Consultant N.Y.C.

Additional Panels to be scheduled on
•Teachers of the Handicapped •Childhood Autism •Evaluations and Assessment •Pre-vocational and Day Programming •Community Development and Placement

3:30 P.M. to 4:45 P.M.

PROJECT ACTIVE—Tom Vodola, Director, Township of Ocean School Districts, Oakhurst, N.J.

MONITORING COMPLIANCE ISSUES—Jed P. Luchow, Norman Doctor, Carol Weiss, Charlotte Roth & Steven W. Morse, Regional Associates, NYS Department of Education

RESEARCH IMPLICATIONS OF SPECIAL OLYMPICS—Thomas Songster, Director of Sports and Recreation, Kennedy Foundation/Special Olympics

TEACHING WRITING SKILLS DEVELOPMENTALLY: LANGUAGE ARTS FOR THE HANDICAPPED STUDENT—Pia Durkin, Project Associate, Special Education SETRC N.Y.C.

THE DEVELOPMENT OF A SPECIAL CLASS PROGRAM FOR THE GIFTED/TALENTED HANDICAPPED GRADES K-12—Mitchell J. Schwartz, Regional Administrator, Southern Westchester B.O.C.E.S., Moderator

CURRICULUM DEVELOPMENT FOR STUDENTS WITH HANDICAPS—Maryanne C. Mazzuko, Superintendent of Schools, Blythedale U.F.S.D., Valhalla, N.Y., and Beatrice Jacobson, Ass't Superintendent, Blythedale U.F.S.D., Valhalla, N.Y.

"LET'S PLAY TO GROW": A MODEL RECREATION PROGRAM FOR THE HANDICAPPED—Anna Tuttle and Carol Tayloe, Special Education College Students, SUNY—Genesco

Additional panels to be scheduled on:
•Early Childhood Education •Legislation •AC/MRDD Accreditation •Behavioral Management •Staff Training Institute •Administrative Burnout •Least Restrictive Environment •Programming for the Teenaged Handicapped

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JEPTHA GREER National CEC
Executive Director

will be one of the
PLENARY SESSION speakers

Friday, 2:00 p.m. to 3:30 p.m.

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